

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1 (currently amended). A method for processing a captured image ~~with one or more correction processes selected from a plurality of such processes, each associated with correction of a specific type of image defect~~, in order to improve the appearance of a viewed image generated from the captured image, said method comprising the steps of:

collecting meta data related to image capture that is unique to each image that is captured, wherein the meta data is capable of indicating whether ~~the~~ specific types of image defects are likely to be present in the viewed image generated from the captured image;

predicting the presence of ~~the one or more~~ image defects exclusive of a scene balance defect, said predicting being based at least in part on the meta data, thereby generating process application criteria which indicate a level of image defect that if left untreated would reduce the perceived quality of the viewed image;

selecting one or more correction processes to employ on the captured image based on the process application criteria;

applying a scene balance correction process to the captured image independent of said meta data; and

applying the one or more selected correction processes to the captured image to generate the viewed image.

2 (original). The method as claimed in claim 1 wherein the meta data includes scene, camera or demographic data related to the image capture.

3 (currently amended). The method as claimed in claim 1 wherein ~~the step of said predicting the presence of the image defects also predicts includes predicting the severity of the respective said image defects and the method further comprises altering~~ the strength of the corresponding correction process ~~can be altered~~ in response to the degree of severity.

4 (original). The method as claimed as in claim 1 wherein the meta data related to image capture is collected at the time of image capture.

5 (original). The method as claimed as in claim 1 wherein the meta data related to image capture is collected at a time other than the time of image capture.

6 (original). The method as claimed in claim 1 wherein the image defect is a noise defect and the meta data is selected from the group consisting of a lens exposure constant, standard (printing) reproduction magnification, non-standard (enlargement) magnification, diagonal dimension of a final display, ambient light level of the primary subject, exposure time, camera lens f-number, and main flash guide number.

7 (original). The method as claimed in claim 1 wherein the image defect is a red-eye defect due to flash illumination of a subject and the meta data is selected from the group consisting of a use (on-off) of the flash illumination, illumination level of the primary subject, subject distance, flash-to-camera lens separation, focal length of camera lens, current reproduction (printing) magnification, diagonal dimension of final display, and preflash guide number.

8 (original). The method as claimed in claim 1 wherein the image defect is a tone scale defect and the meta data is selected from the group consisting of respective illumination levels of the subject and background, subject distance, background distance, exposure time, camera lens f-number, use (on/off) of flash illumination, guide number of a main flash, lens exposure constant and ISO speed of a capture device.

9 (original). The method as claimed in claim 1 wherein the image defect is a sharpness defect and the meta data is selected from the group consisting an exposure time, standard reproduction (printing) magnification, non-standard (enlargement) magnification, current reproduction (printing) magnification, camera lens focus range, camera lens focal length, camera shake factor and linear smear.

10 (original). The method as claimed in claim 1 further comprising the step of collecting meta data related to display parameters of the viewed image generated from each image that is captured, wherein said meta data is capable of indicating whether the specific types of image defects are likely to be present in the viewed image.

11 (original). A computer storage medium having instructions stored therein for causing a computer to perform the method of claim 1.

12-13 (cancelled).

14 (currently amended). The method as claimed in claim ~~12~~ 1 wherein the image capture is an electronic capture on a digital capture device and the capture variables includes at least one variable selected from the group consisting of an ISO equivalent rating of an image sensor used by the capture device, exposure time of an optical system used in the capture device, a f-number of the optical system, a distance of a subject from the capture device, a distance of a background from the capture device, an illumination level on the subject, an illumination level on the background, a distance between a flash illuminator and the optical system, an indication of whether the flash illuminator was used, a guide number for the flash illuminator, an indication of camera shake, an indication that a backlight indicator was turned on, a gain factor for the image sensor and a resolution setting of the capture device.

15 (original). The method as claimed in claim 14 wherein the electronic capture is obtained with a digital camera.

16 (original). The method as claimed in claim 14 wherein the electronic capture is obtained with a digital scanner.

17-28 (cancelled).

29 (currently amended). The method as claimed in claim ~~28~~ 50 wherein the demographic characteristic of the image includes the age or race of the human subject.

30 (cancelled).

31 (currently amended). The system as claimed in claim ~~30~~ 36 wherein the meta data includes scene, camera or demographic data related to the image capture.

32 (currently amended). The system as claimed in claim ~~30~~ 36 wherein ~~the digital signal processor~~ said means for predicting also predicts the severity of the defects based at least in part on the meta data and said means for applying the selected correction process alters the strength of the corresponding correction ~~process~~ in response to the degree of severity.

33 (currently amended). The system as claimed as in claim ~~30~~ 36 wherein ~~the data recording stage~~ said means for recording meta data is part of an said image capture device and at least some of the meta data is related to image capture and is collected at the time of image capture.

34 (currently amended). The system as claimed as in claim ~~30~~ 36 wherein ~~the data recording stage~~ said means for recording meta data is separated from said image capture device and the meta data related to image capture is collected at a time other than the time of image capture.

35 (currently amended). The system as claimed in claim ~~30~~ 36 wherein at least some of said further comprising means for collecting meta data is related to display parameters of the viewed image, ~~wherein~~ said meta data related to display parameters is capable of indicating and indicates whether the specific types of image defects are likely to be present in the viewed image.

36 (currently amended). A system for processing a captured image ~~with~~ ~~one or more correction processes selected from a plurality of such processes, each associated with correction of a specific type of image defect~~, in order to improve the appearance of a final viewed image generated from the captured image, said system comprising:

a) an image capture device ~~utilizing a camera control system~~ to capture the image;

b) a photofinishing system utilizing a photofinishing control system to produce the final viewed image;

c) means for recording meta data, ~~at the time each image is captured, at least one image capture parameter known to indicate whether an image defect is said~~ meta data being capable of indicating whether specific types of image defects are likely to be present in the final viewed image;

d) means for storing and later transferring to the photofinishing control system at least one of said parameters;

e) ~~means for employing in wherein~~ the photofinishing control system has a means for predicting from at least one of said image capture parameters and current printing parameters, whether the captured image will have a level of one or more image defect defects, exclusive of a scene balance defect, that if left untreated would reduce the perceived quality of the final viewed image; and

means for correcting scene balance in the capture image independent of said means for predicting;

f) means for applying correction of said one or more image defects in to the captured image via automated or operator-assisted techniques, ~~image defect location and correction means~~, when said prediction means indicates a level of said one or more image defect defects that if left untreated would reduce the perceived quality of the final viewed image.

37-38 (cancelled).

39 (new). A method for processing a captured image, said method comprising the steps of:

collecting meta data related to the captured image;

computing predictions of a plurality of different perceived quality reducing defects in the captured image using said meta data, said plurality of defects being exclusive of scene balance;

adjusting scene balance of the captured image independent of said predictions; and

applying one or more of a plurality of different correction processes on the captured image responsive to said predictions.

40 (new). The method of claim 39 wherein said plurality of defects includes each of: a noise defect, a redeye defect, a tone scale defect, and a sharpness defect.

41 (new). The method of claim 39 wherein said predictions predict both presence and severity.

42 (new). The method of claim 39 further comprising calculating intermediate parameter values using said meta data and wherein said computing further comprises determining at least one of said predictions using both said meta data and said intermediate parameter values.

43 (new). The method of claim 42 wherein said intermediate parameter values quantify one or more of: degree of exposure of subject, degree of exposure of background, angular magnification of the subject, final image viewing distance, maximum handheld shutter time, and display size factor.

44 (new). A computer storage medium having instructions stored therein for causing a computer to perform the method of claim 39.

45 (new). A system for processing a captured image, said system comprising:

means for collecting meta data related to the captured image;

means for computing predictions of a plurality of different perceived quality reducing defects in the captured image using said meta data, said plurality of defects being exclusive of scene balance;

means for adjusting scene balance of the captured image independent of said predictions; and

means for applying one or more of a plurality of different correction processes on the captured image responsive to said predictions.

46 (new). The system of claim 45 wherein said plurality of defects includes each of: a noise defect, a redeye defect, a tone scale defect, and a sharpness defect.

47 (new). The system of claim 45 wherein said predictions predict both presence and severity.

48 (new). The system of claim 45 further comprising means for calculating intermediate parameter values using said meta data and wherein said means for computing further comprises means for determining at least one of said predictions using both said meta data and said intermediate parameter values.

49 (new). The system of claim 48 wherein said intermediate parameter values quantify one or more of: degree of exposure of subject, degree of exposure of background, angular magnification of the subject, final image viewing distance, maximum handheld shutter time, and display size factor.

50 (new). A method for processing a captured image having a flash illuminated human subject, said method comprising the steps of:

collecting meta data related to the captured image, said meta data identifying a demographic characteristic related to redeye;

computing a prediction of presence and severity of redeye defect in the captured image using said meta data; and

applying a redeye defect correction process on the captured image responsive to said prediction.

51 (new). A computer storage medium having instructions stored therein for causing a computer to perform the method of claim 50.

52 (new). A system for processing a captured image having a flash illuminated human subject, said system comprising:

means for collecting meta data related to the captured image, said meta data identifying a demographic characteristic related to redeye;

means for computing a prediction of presence and severity of redeye defect in the captured image using said meta data; and

means for applying a redeye defect correction process on the captured image responsive to said prediction.